California Department of Transportation
4050 Taylor Street
San Diego, CA 92110
ph: (619) 688-6670 Fax (619) 688-3695
www.dot.ca.gov/dist11

SAN DIEGO AND IMPERIAL COUNTIES

September 2006

State Route 54 HOV Lanes

BACKGROUND

State Route 54 (SR-54) is a 6-lane freeway that runs from west to east between Interstate 5 (I-5) and SR-125. SR 54 serves Chula Vista, National City and a portion of unincorporated San Diego County. Two of the six lanes operate as High Occupancy Vehicle (HOV) lanes during peak hours for a short segment between I-805 to Briarwood Road.

HOV lanes are developed to maximize people carrying capacity of the freeways. It's an alternative that meets the federal air quality conformity standards for capacity increasing projects in metropolitan areas. However the Department has evaluated the relatively short segment of SR 54 with HOV lanes and has found:

- The highest HOV violation rate in the state
- Localized congestion in the AM and PM peak commute caused by weaving
- The short length makes these HOV lanes ineffective
- The lack of a buffer separation and pullouts make enforcement difficult

PROJECT

CALTRANS rarely advocates converting an HOV lane into a general-purpose lane. However, in this instance there are operational difficulties that have led to this conclusion.

PROJECT cont

The SR 54 corridor is a mix of segments with varying lane configurations that present an inconsistent driving pattern for commuters. The corridor currently has an HOV (4+2) lane configuration for less than 20% of its total 14-mile length from I-5 to SR 94. These HOV lanes are short and operate independently and therefore lack system continuity. The lack of entrance and exit points and a buffered separation from the general purpose lanes encourage HOV violations and the short HOV trip negates the time savings that attract HOV use.

In the south bay a full-time, continuous HOV lane system has been in the regions transportation plan since the 1980s. General population growth, land development and new route connections are generating increased demand for the lanes. Traffic modeling shows that full time continuous HOV lanes on SR 54 will be needed by the year 2016 to meet traffic demand. The model predicts that a lane configuration of 6F+2HOV will meet the demand through the year 2030. Mobility 2030, the regions transportation plan, already proposes this improvement.

In order to prepare for this, a short-term fix is needed for improving mobility and dealing with this increased demand now. If the current HOV lanes are temporarily converted to general-purpose lanes, it would resolve many of the operational problems currently seen along the corridor. This would buy time to get the larger project in place and still meet the demand in the interim.

FUNDING

CALTRANS funding is available right now for the HOV lane conversion under the Go-California SHOPP projects. Construction of this project will be by June 2007.